A SURVEY OF THE CANADIAN PUBLIC'S ATTITUDES TOWARDS THE ENERGY SITUATION

- VOLUME II -

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Presented To:

Policy Co-ordination Bureau
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Les points de vues exprimés dans cette étude sont ceux de l'auteur et il ne réflètent pas nécessairement la position du Ministère."

PREFACE

This volume marks the tenth anniversary of surveys conducted to measure the Canadian public's attitudes towards the energy situation. The surveys began in 1975 and in 1979 major changes in both the questionnaire and sampling procedures were instituted. Details concerning the previous studies and changes are contained in the technical appendix accompanying this report and in the following reports:

1. "A Study of the Canadian Public's Attitudes Toward the Energy Situation in Canada", Wave I-IV, Department of Energy, Mines and Resources, 1975-1978.

2. "Analysis of the Energy Situation Attitudes Survey", Final Report, Consumer Research and Evaluation Branch, Consumer and Corporate Affairs, January 1979.

3. "A Survey of the Public's Attitudes Toward the Energy Situation", Volume I, Energy, Mines and Resources, May 1979.

4. "A Survey of the Canadian Public's Attitudes Toward the Energy Situation", Volume II, Consumer Research and Evaluation Branch, Consumer and Corporate Affairs, Canada, June 1979.

5. "A Survey of the Public's Attitudes Toward the Energy Situation", Volume I, Consumer Research and Evaluation Branch, Consumer and Corporate Affairs, Canada, May 1980.

6. "A Survey of the Canadian Public's Attitudes Toward the Energy Situation", Volume II and Technical Appendix, Consumer and Corporate Affairs, Canada, June 1980.

7. "A Survey of the Public's Attitudes Toward the Energy Situation", Volume I, Consumer and Corporate Affairs Canada, May 1981.

8. "A Survey of the Canadian Public's Attitudes Toward the Energy Situation," Volume II and Technical Appendix, Consumer and Corporate Affairs, Canada, June 1981.

9. "A Survey of the Public's Attitudes Toward the Energy Situation", Volume I, Consumer and Corporate Affairs, Canada, June 1982.

10. "A Survey of the Canadian Public's Attitudes Toward the Energy Situation," Volume II and Technical Appendix, Consumer and Corporate Affairs, Canada, August 1982.

11. "A Survey of the Public's Attitudes Toward the Energy Situation", Volume I, Consumer and Corporate Affairs, Canada, April 1983.

12. "A Survey of the Canadian Public's Attitudes Toward the Energy Situation," Volume II and Technical Appendix, Consumer and Corporate Affairs, Canada, June 1983.

13. "A Survey of the Public's Attitudes Toward the Energy Situation", Volume I, Consumer and Corporate Affairs, Canada, March 1984.

A summary report covering the first six years entitled Energy: Canadians' Attitudes and Reactions (1975-1980) has been published by Consumer and Corporate Affairs Canada. A further summary report entitled "The Energy Situation: Consumer Attitudes and Reaction (1975-1984)" is available from Consumer and Corporate Affairs Canada.

The objective of this report is to provide further analysis of the data presented in Volume I (1984) and to provide a number of linkages across all ten years in which the surveys have been conducted.

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July 1984

TABLE OF CONTENTS

	Page
PREFACE	i
TABLE OF CONTENTS	iii
LIST OF TABLES	iv
EXECUTIVE SUMMARY	vi
INTRODUCTION	1
Overview	1
Technical Issues	1
Report Sequence	1
TRENDS: 1975 to 1984	2
Attitudes	2
Self-Reported Energy Conserving Behaviors	5
Self-Reported Activities Related to CHIP and COSP	6
Support for Possible Government Conservation Measures	7
Attitudes and Demographics	7
Self-Reported Behaviors and Demographics	8
Attitudes, Behaviors and Cities	8
Conclusions	9
FURTHER ANALYSIS: 1984 SURVEY	10
Introduction	10
Relationship Between Attitudes and the Other Indices	10
Automobile Ownership, Usage and Demographics	11
Characteristics of Homeowners Who Have Added Insulation and Weatherstripping/Caulking	14
Description of Severe Hardship Respondents	16
Relationship Between Perceived Cost Increases and Activities and Demographics	17
Demographic Profile of CHIP and COSP Users	17
Future Intentions Regarding Conservation Actions	19
Conclusions	20
OTHER RELATED RESEARCH	18
CONCLUSIONS AND IMPLICATIONS	19
Conclusions	19
Implications	22

LIST OF TABLES

	Page
Table 1 - Problems Facing Canadians Today (1975, 1978-1984)	26
Table 2 - Perceived Seriousness of Selected Issues in Canada (1975-1984)	27
Table 3 - Importance of Individual Efforts to Conserve Energy (1975-1984)	28
Table 4 - Attitudes Towards the Energy Situation (1979-1984).....	29
Table 5 - Perceived Cost Increase in Past 12 Months (1979-1984)	30
Table 6 - Actual Fuel Cost Increase in Past 12 Months (1979-1984).....	31
Table 7 - Differences Between Perceived and Actual Cost Increases (1980-1984)	32
Table 8 - Self-Reported Energy Conserving Behaviors and Activities (1979-1984)	33
Table 9 - Average Thermostat Settings (1979-1984)	34
Table 10 - Awareness and Participation in CHIP and COSP (1982-1984)	35
Table 11 - Degree of Support for Possible Government Conservation Measures (1979-1984)	36
Table 12 - Ranking of Cities by Attitudes and Behaviors (1979-1984)	37
Table 13 - Highlights of the 1984 Survey - Volume I	38
Table 14 - Overview of Indices	40
Table 15 - Significant Relationships Between Attitudes and Other Indices	41
Table 16 - Significant Relationships Within Indices	42
Table 17 - Significant Relationships Between Demographics and the Indices	43

LIST OF TABLES (cont'd.)

Page

Table 18 - Number of Vehicles Owned 44

Table 19 - Distribution of Vehicles by Number of Cylinders 45

Table 20 - Number of Cylinders per Vehicle, by Number of Vehicles Owned 46

Table 21 - Commuting Activity per Week by Number of Vehicles Owned 47

Table 22 - Relationship Between Vehicle Ownership and Usage 48

Table 23 - Relationship Between Vehicle Ownership and Demographics 49

Table 24 - Characteristics of Homeowners Who Added Insulation and Weatherstripping/Caulking 50

Table 25 - Profile of Severe Hardship Respondents (Highlights) 51

Table 26 - Perceived Cost Increases by Attitudes and Behaviors ... 52

Talbe 27 - Perceived Cost Increases by Demographics 53

Table 28 - Demographic Profile of Those Aware of or Have Participated in CHIP and COSP 54

Table 29 - Future Intentions Regarding Conservation Actions 55

EXECUTIVE SUMMARY

The analysis of the 1984 survey of the Canadian public's attitudes towards the energy situation has lead to the following conclusions:

- While energy prices are still a concern to the majority of Canadians, interest and involvement in "energy" continues to decline. For each of the last three years, fewer Canadians have regarded the energy situation as important. These results illustrate the transitory nature of most issues which ebb and flow in the consumers mind depending on economic and environmental conditions. As well, energy has never reached the level of concern of the traditional "big three" issues; unemployment, inflation and interest rates.

- Consumers estimates of energy price increases in the past year far exceeded the actual price increases. For example, consumers estimated that gasoline prices increased by 16 percent when they actually declined by .2 percent. These perceptions probably account, in part, for the high proportion of consumers (95 percent) who feel that money spent on home insulation is a good investment and the majority (58 percent) who budget carefully for fuel and electricity bills. In contrast, there has been a downward trend for the past two years in self-reported energy conserving behaviors (e.g. - those reporting that they "drive less" declined from 59 percent in 1982 to 51 percent in 1984).

- Awareness and participation levels in COSP and CHIP have been relatively high for the past three years.

- A detailed analysis of two conservation behaviors - adding insulation and weatherstripping/caulking - indicated that those who had performed these behaviors tended to be knowledgeable about energy and were satisfied that the money was well spent. Those who didn't perform these two conservation behaviors felt they had sufficient insulation/weatherstripping. Further, those with newer homes felt that their homes were well insulated.

- There has been a substantial trend towards downsizing cars with most of the downsizing occuring in 1984. However, multiple car households still remain as disproportionately heavy users of gasoline.

The following recommendations results from the analysis and conclusions:

- Few, if any, resources should be allocated to information programs. Because of the declining interest in energy, most consumers are unlikely to seek or use information on conservation. At best, targeted information programs that focus on specific conservation actions such as weatherstripping might have a marginal impact. An opportunity may exist to target selected households - those with newer homes who think their dwelling is energy efficient but is not.

- The downsizing of the automobile fleet which has occurred, particularly in the last year, could be further accelerated if the fuel consump-

tion stickers remained on new cars until they were sold. There is strong consumer support for a mandatory labelling program and this evidence might be used to encourage car dealers to leave the stickers on the cars.

- In summary, opportunities to achieve further energy savings through conservation are few and far between. While many consumers perceive substantial increases in energy prices (which are significantly larger than reality) most of the evidence from the survey indicate that interest and motivation levels to conserve continue to decline. It may be appropriate to let market forces operate without further attempts to accelerate the conservation process. Simply stated, further allocation of government resources to encourage conservation may have minimal impact.

INTRODUCTION

Overview

Based on a telephone survey of approximately 1,800 male and female heads-of-households in nine cities, Angus Reid Associates Inc., a marketing research firm, has prepared a report on the Canadian public's attitudes towards the energy situation (Volume I). This report (Volume II) presents additional analyses of the 1984 data and provides some comparisons with the nine previous annual surveys conducted in this area. The major objective of this report is:

- To provide an understanding of the relationship between Canadians' attitudes, behaviors, and program support with respect to the energy situation.

Technical Issues

A number of technical issues dealing with the sampling procedures, the questionnaire comparability over the ten years, the method used to calculate the indices, and detailed results are contained in the technical appendix. For those interested the appendix is available from Consumer and Corporate Affairs, Canada.

Report Sequence

The report contains three major sections; Trends: 1975 to 1984, Further Analysis: 1984 Survey, and Conclusions and Implications.

TRENDS: 1975 to 1984

This section presents comparable findings between 1975 and 1984. Comparisons across the years by question are reported, followed by a discussion of the relationships between selected questions.

Attitudes

Concern about the energy issue reached its highest level in 1980 and 1981. In those years when respondents were asked about "the problems we ... Canadians ... should be most concerned about" approximately 1 in 5 Canadians mentioned energy. In 1984 only 4 percent mentioned energy, the lowest number in all the years the survey has been conducted (Table 1).

Canadians major concern in 1984 was unemployment, with 98 percent of those surveyed stating that this was a very or somewhat serious issue (Table 2). This table reflects the transitory nature of issues over the years. Interest rates, a major concern in 1982, was not in the top four in the next two years. Cost of energy, while still a concern with three quarters on the respondents, fell 11 percent in absolute terms between 1983 and 1984. Energy shortage, as an issue, has declined and remains at its lowest level since the surveys have been conducted with only 42 percent of the respondents considering it as very or somewhat serious issue. Both energy shortages and cost of energy appear to be continuing downward in terms of concern, again reflecting overall economic and en vironmental conditions.

As in previous years, the importance of individual efforts to conserve energy continues to be considered important by the vast majority of Canadians (Table 3). Most of the Canadian public appears to have accepted the idea that individual efforts to conserve are important and acceptance has remained high - around the 90 percent level - over the ten year period.

Attitudes have also been measured through a series of questions which tap specific aspects of the energy situation (Table 4). Overall, attitudes towards the energy situation have changed considerably from 1980, the year in which people were most concerned about energy and only one-third could be considered hostile (e.g. - the energy crisis is a hoax). In 1984, the results could be described in general as a lower interest in the energy situation. Only 42 percent of the respondents felt that the "energy crisis" was a hoax, down from 50 percent in the previous two years. The other measures of hostility showed a slight decline between 1983 and 1984. The "need to conserve" measures were up marginally in 1984 with most people agreeing with some aspects of this component. However, the acceptance of the "need to conserve" for various reasons has declined considerably from 1980.

Considering the "other" measures, while six in 10 people still agree that they carefully budget for full and electricity bills, only 25 percent state that the high cost of energy has caused them severe hardships, down from 33 percent in 1982. Interestingly, 19 out of 20 respondents still feel that spending money on home insulation is a good investment and 7 in 10 state they know where to get accurate information on how to save energy.

While it is still apparent that energy price increases have had an effect on Canadians and increased their sensitivity to the economic effects of energy use, the overall results suggest that people have accepted this current state of affairs. Hostility has declined and the

need to conserve has declined, particularly in the last two years. The energy issue is now centered on price, and the other dimensions of the energy issue have become less important.

Another attitude which has been measured for the past six years has been the perceived annual increase in the cost of energy (Table 5). In 1984 Canadians estimated that the price of gasoline had risen by approximately 16 percent in the previous 12 months, heating oil by 15 percent, natural gas by 13 percent and electricity by 14 percent. These perceiv ed increases were, in most cases, the lowest estimates over the last six years.

Actual cost increases for 1979 to 1984 are presented in Table 6. These actual increases are the lowest recorded increases since 1979 and it should be noted that gasoline prices actually declined by .2 percent for the 12 month period ending in March 1984. Recognizing that the components vary somewhat (e.g. - piped and bottled gas is slightly different from natural gas) and the actual increases are based on national surveys, comparisons between respondent perceptions and reality are interesting. As shown in Table 7, respondents have consistently overestimated annual energy cost increases in the last three years. The major shock in terms of increased prices occured in 1981 and 1982 (Table 6) and it is possible that a lag exists between actual and perceived increases in energy costs.

The differences between actual and perceived increases in both 1983 and 1984 are considerable and the 1984 perceptions vary considerably from reality. For example, the price of gasoline remained virtually

unchanged for the March to March period yet respondents, on average, thought that gasoline prices had risen by 16 percent. Only 10 percent of the respondents thought that gasoline prices had risen less than 5 percent in the last twelve months (see Volume I for further details) and over 20 percent of the respondents thought gasoline price increases exceeded 20 percent for the year. These discrepancies between perception and reality are difficult to explain against the background of the gasoline price wars which occured in the last year. However, the consequences of these perceptions are that consumers undoubtedly remain sensitive about energy prices.

In summary, consumer attitudes towards the energy situation in 1984 indicate a slight decline in hostility towards those who have managed the energy situation and a moderate decline in the need to conserve or preserve our resources. Consumers for the past two years have overestimated energy price increases and this occurance may account for the relatively large proportion of respondents who regard insulation as a good investment and for the fact that six in ten report they budget very carefully for fuel and electricity bills.

Self-Reported Energy Conserving Behaviors

In 1984, the reported level of those engaged in energy conserving activities was mixed when compared to 1983 (Table 8). For some activities there were marginal increases (e.g. - turning off lights more often using public transportation more) and for others there were marginal decreases (e.g. - driving less, furnace serviced yearly). In general most conservation activities have declined slightly from prior years.

These results are somewhat surprising considering that the respondents perceived energy costs as rising considerably in the past three years. In 1982, this perception of rising energy costs appeared to translate into increases in self-reported conservation actions. However, this has not occured in the past two years. It may be that this slight decline in these self-reported activities is a result of; (1) one segment of the population who have integrated conservation behaviors into their lifestyle and, (2) another segment who performed some conservation activities for a a limited period of time and then returned to their previous lifestyles. That is, in spite of perceived higher energy prices, some consumers are returning to previous behaviors because it is easier.

A further indicator of conservation activity is the average temperature settings (during the day and at night) of Canadian households. Since 1979, temperature settings during the day and night have declined by approximately one degree fahrenheit (Table 9). In 1984, the average night setting of 66°F was an increase of 1°F over the previous year.

In summary, the self-reported conservation behaviors were mixed in 1984 compared to 1983. Unlike 1982, where increased levels of conservation behavior accompanied perceived energy price increases, in both 1983 and 1984 respondents' behaviors did not follow their price perceptions to the same degree.

Self-Reported Activities Related to CHIP and COSP

The level of awareness of CHIP is extremely high among Canadians; in each of the last three years approximately eight out of ten homeowners

stated that they have heard of CHIP (Table 10). Further, approximately one in four homeowners has received a CHIP grant (23 percent in 1982, 27 percent in 1983, 29 percent in 1984). These results, particularly the high awareness levels, should be considered excellent for this type of program. In fact, any consideration for further advertising support to increase the awareness of the CHIP program is probably not warranted.

Of those homeowners who currently heat with oil, about one half (48 percent) have heard of COSP. Of the homeowners who have recently switched from oil to another fuel, 54 percent reported receiving a COSP grant. Again, the level of awareness and participation rates in COSP are quite high and further promotion may achieve marginal returns. A later section of the report will provide further details on these two programs (e.g. - demographic characteristics of users).

Support for Possible Government Conservation Measures

Since 1979 a series of questions have focused on support for various government conservation measures and programs (Table 11). From 1981 to 1983 support for all programs declined, particularly programs that propose energy price increases and regulatory programs. However, in 1984 support for all conservation measures increased marginally and in two cases (a special tax on gasoline to support exploration and a $25 home audit program) increased by 6 percent. Canadians prefer voluntary programs particularly those with an information component (e.g. - showing people how to save energy). Eight out of ten people support a mandatory fuel consumption sticker program for new cars. Overall, few people support price increase programs.

Attitudes and Demographics

In past years, the relationships between two attitude variables, "perceived seriousness of energy shortage" and "importance of individual efforts to conserve energy" and six demographic and geographic variables, age, sex, language, education, city and income, were analyzed to determine if any demographic profile existed. The results, not shown, reveal no clear-cut consistent pattern between attitudes and demographics. Considering both attitude measures, it is reasonable to conclude that attitudes towards energy, particularly the "importance of individual efforts" are not consistently related to demographic characteristics. In addition, the fact that fewer Canadians each year see an energy shortage as serious suggests that this attitude measure is somewhat less relevant in tapping a dimension relating to energy concern.

Self-Reported Behaviors and Demographics

Four energy conserving behaviors (using less hot water, turning down the thermostat, driving less, and turning off lights) were also analyzed with respect to the demographics (results not shown). Again, as in previous years, the results support the general conclusion that no clear, consistent demographic profile of high or low participation in energy conserving behaviors can be established over the years. While differences do exist based on demographic characteristics, the differences do not occur in all years nor are they consistent when they do occur. It is appropriate to suggest that considering both attitudes and behaviors, no demographic profile can be established.

Attitudes, Behaviors and Cities

In an attempt to determine what regional differences, if any, existed on a consistent basis, the two attitudes (perceived seriousness of energy shortage and importance of individual efforts to conserve energy) and the four behavior measures (using less hot water, turning down the thermostat, driving less, and turning off lights) were examined by city for the past six years. Each time a city was significantly above the average of all cities it received a score of one. The results (Table 12) reveal that residents of Quebec City and Montreal have shown the greatest degree of concern regarding energy shortages. Residents of Montreal, Halifax and Toronto were highest on "the importance of individual efforts to conserve" and people in Ottawa and Halifax had the highest participation rate on the energy conserving behaviors over the six years. Winnipeg and Calgary residents could be described as having the lowest interest and concern about energy and conservation. There is no clear explanation for these results. They appear to be a function of provincial energy pricing policies, cultural differences, and other less obvious factors. While in the past, shifts have occurred with respect to concern and participation rates suggesting either instability in people's attitudes/behaviors or changing opinions by city, for the last two years the results have been consistent by city. This could indicate that either attitudes have stabilized (an unlikely occurance considering previous results) or that few "environmental" changes have occurred (e.g. no change in provincial energy price policies), a more plausible explanation.

Conclusions

Based on the preceding analysis of the ten annual surveys the following conclusions can be stated:

- 1980 has proven to be the year in which Canadians were most concerned about the energy situation. The last four years have shown a continued decline in interest and concern. In those years Canadians were primarily concerned about some aspect of the economic situation and in 1984 the "hot" issue was unemployment. The interesting contrast between the results in the last two years compared to 1982 is that in 1982 respondent interest/concern over energy declined but the participation rates in self-reported conservation behaviors increased. The explanation was that higher energy prices encouraged conservation. In the last two years, interest continued to decline and participation rates in conservation activities declined as well (although in most cases it was only a marginal decline) in spite of the fact that respondents perceived energy prices increasing more than 20 percent in 1983 and 15 percent in 1984. The explanation for this difference between 1982 and the following years may be that some Canadians are becoming accustomed to higher energy prices and are less inclined to continue with certain conservation actions.

- While participation rates in self-report energy conserving behaviors have declined since 1982, the effect of higher prices is still evident. Six out of 10 people budget carefully for fuel and electricity bills, one in four people claim energy prices have caused them severe hardships, over nine in 10 people agree that spending money on insulation is a good investment and two out of 10 people (down from three out of 10 people in 1983) plan to spend money within the next 12 months to improve the energy efficiency of their home.

- Discontent about the management of the energy situation in Canada has declined in the past year. Only four in 10 respondents felt that the energy crisis was a hoax, down from one in two in 1983, and support for most government conservation programs increased slightly.

- Awareness and participation in two government programs (CHIP and COSP) was high in 1984.

FURTHER ANALYSIS: 1984 SURVEY

Introduction

The first volume of this study (prepared by Angus Reid Associates Inc.) reported the general findings and provided a number of cross tabulations. The highlights of Volume I as reported by Angus Reid Associates Inc. are presented in Table 13. This volume (Volume II) provides further analysis of the 1984 data by creating a series of indices which measure attitudes, program support, and self-reported behaviors. The indices (described in Table 14) were created in order to facilitate the analysis, and are simply the average of between two and seventeen questions. These averages were then multiplied by 100 and then grouped into three categories (low, medium and high). This part of the analysis is described more fully in the technical appendix. The details concerning the sequence of this analysis and the method used to construct each index are also presented in the technical appendix. As well, some further analysis on automobile ownership and usage patterns and other matters is provided in this section of the report.

Relationship Between Attitudes and Other Indices

As shown in Table 15 those holding hostile attitudes generally do not support price/tax increases. They do however support mandatory programs. It is possible that those who are hostile feel that cost increases hurt them more than others but that mandatory programs would tend to be more equitable and thus are viewed more favourable. Interestingly, in 1984, hostility was positively related to three of the five energy

conserving activities, the first time this has occurred. No explanation can be offered for these results as they are counter intuitive. At a minimum one would expect no relationship between hostility and conservation behaviors, the result in prior years.

As in all previous years, the "need to conserve energy" attitude is related in the expected direction to virtually all support for programs and energy conserving behavior. This attitude is the most critical component in terms of explaining behavior or program support.

Again, as in previous years, a relatively high degree of consistency was obtained when a "within index" analysis was conducted (Table 16). For attitudes, program support, and behaviors the relationships were in the predicted direction. That is, those supporting mandatory programs also support price/tax increase programs. Those adopting a large number of energy conserving behaviors also set their thermostats lower.

Until 1982, those scoring high on the "need to conserve energy" attitude and the "hostility" attitude could not be described in demographic terms as their profile changes from year to year. For the past three years, a constant pattern has emerged (Table 17). The "need to conserve" was higher for younger, female, and French-speaking respondents. Those who are hostile can be described as older, French-speaking, and having both lower income and education levels. In general, no clear-cut pattern emerged with the other indices relative to demographics.

Automobile Ownership, Usage and Demographics

Because private transportation is an important component of oil demand in Canada additional analysis was conducted on automobile ownership and usage patterns. The trend in the number of cars per household between 1981 and 1984 (Table 18) reveals that there has been virtually no change in the distribution of cars owned per household. Canadians own, on average, 1.4 cars per household and almost four in ten households own more than one car. Only 12 percent of the households do not own a car.

Two of the major ways in which energy conservation can be achieved in the private transportation sector are improved new vehicle efficiency and consumer purchase of smaller cars (i.e. - downsizing). Information on the magnitude of downsizing is available for the last four years. As shown in Table 19, the proportion of four cylinder vehicles owned has increased with a corresponding decrease in eight cylinder vehicles. Assuming a 50 percent difference in fuel consumption between a four versus an eight cylinder vehicle, the effect of this change should be a reduction in total fuel demand for private vehicles of 4 percent. These results provide some indication of the shift in downsizing over the four years and the conservation gains which can be achieved by this method.

Also of interest is the shift in cylinders per vehicle by single and multiple vehicle households. Since 1981, there has been a tendency for single vehicle households to downsize slightly more than multiple vehicle households (Table 20). This downsizing shift for all households, but in particular for single vehicle households, was most dramatic in 1984.

It should also be noted that the average cylinders per vehicle is virtually the same regardless of the number of vehicles owned by the household.

The primary use of household vehicles is for commuting which can constitute up to 70 percent of total household driving. To see how commuting patterns have changed, if at all, between 1981 and 1984, the commuting activity (as measured by number of days per week a vehicle is used to get to work or school) was examined (Table 21). For one-vehicle households, 60 percent used their vehicle for commuting five days per week or more a pattern that has been relatively stable over the last four years. There has been a slight increase in the proportion of households who are non-commuters and a slight decline in heavy commuters.

Approximately 83 percent of two-vehicle households had at least one vehicle being used for commuting five days per week or more. However, there has been a marked decline in the single plus commuter and an increase in the two lower commuting categories. This may be a reflection of the economic times where a proportion of households have experienced a decline in the number of members working or attending school. All three-vehicle households had at least one vehicle being used for commuting five days or more When the results for multiple vehicle households are examined it is apparent that 40 percent or more of the households have two family members either working full-time or attending school. Thus, the primary purpose of additional cars in a household is for commuting.

Table 22 summarizes the key variables just discussed and serves to reemphasize that multiple vehicle households had, on average, similar size vehicles (as measured by cylinders) to single vehicle households.

For two vehicle households in 1984, each vehicle averaged 6.0 cylinders and for three vehicle households, the average number of cylinders per vehicle was 6.3. Similarly, the average number of days each vehicle was driven to work or school (i.e. - used for commuting) was similar, with single vehicle households at 3.7 days per week and three vehicle households at 3.2 days per week. Thus, multiple vehicle households do not practice conservation activities when compared to single vehicle households, in terms of either the size of their vehicles or the number of days commuting. Clearly, multiple vehicle households are heavy users of gasoline and offer targets for various conservation programs.

The demographic characteristics for each category of vehicle ownership (none, one, two, three or more) for 1982 to 1984 are presented in Table 23. A clear demographic profile can be established which is consistent for both years for vehicle ownership; as household vehicle ownership levels increase so does; family income, the percent owning their own home, the percent speaking English, the number of people residing in the home and the number of people in the household who work full-time. The forces which influence households to own vehicle(s) are very straightforward and heavy users of gasoline can easily be identified through this type of demographic analysis.

Characteristics of Homeowners Who Have Added Insulation and Weatherstripping/Caulking

To provide a better understanding of consumer behavior and conservation, homeowners were questioned in some depth about two activities - adding insulation and weatherstripping/caulking. Fifty-nine

percent of the homeowners questioned have added insulation (Table 24), 46 percent of them installed the insulation themselves, most did it within the last two years (52 percent) and spent, on average, $800. Nineteen out of twenty felt the money was well spent and only 8 percent stated they had problems with the job; the major problam being poor workmanship.

For both 1983 and 1984, the homeowners who added insulation, compared to those who didn't, have taken more conservation actions, have read more about conservation, state that they know where to get information on how to save energy and view themselves as handy at fixing things around the house. They live in older homes and many received a CHIP grant. The main reason given by those who have not added insulation for their "inactivity" was that their home had sufficient insulation. Finally, no demographic differences existed between those who have or have not added insulation.

The results for the homeowners who added weatherstripping/caulking were similar to the "insulators". The major differences were in the proportion who did it themselves (82 versus 46 percent), the timing of the activity (82 percent had done it within the last two years) and the amount spent (on average $55). Only six percent had problems and the major problem was that it was "hard to do". In terms of most of the remaining characteristics the profile for those who had weatherstripped was the same as those who added insulated. These households planned to do more conservation activities in the future.

It should also be mentioned that a significant relationship existed between the perceived energy efficiency of the home and the age of the

home; respondents who lived in newer homes considered them more energy efficient.

Description of Severe Hardship Respondents

A new question was added to the 1982 survey which identify those respondents who felt the high cost of energy had caused them severe hardships (33 percent agreed in 1982). In 1983, 28 percent of the respondents felt it had and in 1984, 25 percent of respondents concurred. Table 25 provides a profile of these respondents in 1984, and as might be expected, they tend to have lower income and education levels. As well, they tend to be French-speaking.

On average, they were more hostile than the remainder of the sample. They also reported a higher level of conservation actions than did the "non-hardship" respondents. Similar findings were reported in both 1982 and 1983. These results offer some insights as to the characteristics, attitudes, and behaviors of respondents who perceive high energy prices as causing them problems. In capsule form, they could be described as; primarly working class or poor, hostile about the situation, but reporting higher levels of conservation. It is likely that the higher levels of conservation reported by these respondents are due to economic circumstances, not choice.

Relationship Between Perceived Cost Increases and Activities and Demographics

As mentioned earlier, perceived energy cost increases in the past twelve months averaged approximately 15 percent for the four fuel types.

Further analysis was conducted to determine if there was any relationship between these perceptions and conservation activities and/or demographics. A relationship was found between hostility and price estimates: those who scored high on the hostility index estimated higher price increases for all four fuels than did those who scored low (or medium) on hostility (Table 26). Further, energy conservation activities were associated with cost estimates: those scoring higher on the conservation indices tended to estimate higher costs. These results, with one exception, provide support for the idea that those respondents who perceived larger energy cost increases have a higher participation level in conservation activities. The exception, a lack of a significant difference between transportation conservation actions and perceived cost increases in gasoline, suggests that the results should be viewed with some caution.

Analysis of the cost estimates and demographics (Table 27) indicate that higher cost estimates were given by; females, those with lower education and income levels and English-speaking. While differences existed across cities there was no apparent pattern (e.g. - East versus West).

Demographic Profile of CHIP and COSP Users

To determine who was being reached by two government conservation programs, a demographic profile of users and participants in CHIP and COSP was determined (Table 28). In 1984 and 1982 a demographic profile of those who had heard of CHIP is evident (e.g. - upscale, English-

speaking). However, some caution is necessary because in 1983 the results show that, generally, those who have heard of or received a CHIP grant had similar demographic characteristics to those who haven't heard of CHIP or received a grant. In all three years, those who have heard of COSP tend to be male, French-speaking and have higher education levels. Overall, both programs now appear to be reaching (or not reaching) most strata of the Canadian public, although there is a tendency for upscale respondents to be more aware of the programs.

Future Intentions Regarding Conservation Actions

In 1982 a question was added to the survey regarding future investment in home energy conservation. As shown in Table 29 for the past three years, about one in four respondents plan to spend money during the next twelve months to improve the energy efficiency of their home. Most of these respondents plan to spend more than $500 and, in 1984, the investments will be made mainly in the are of home insulation and storm windows. These results have been relatively stable over the three year period.

Conclusions

The major relationships established in the 1984 survey are:

- As in previous years, the strongest link between attitudes and the other indices is the "need to conserve". Those holding this positive attitude, analagous to "the importance of individual efforts to conserve energy", exhibit strong support for programs, including price/tax increases, and they state they are engaging in energy conserving behaviors.

- Again, as in the past five years, a reasonable degree of consistency exists between the indices in each area. This provides some confidence that the measures used are fairly reliable and have some degree of face validity.

OTHER RELATED RESEARCH

Those readers interested in this area should be aware that a number of studies have been conducted in Canada on energy conservation in the consumer sector. Some of the major investigations which have been conducted for Consumer and Corporate Affairs Canada are:

- Energy Consumption and Conservation Patterns in Canadian Households.
- Point-of-Purchase Energy Information Disclosure and Consumer Choice of Household Appliances.
- Economic and Behavioral Analyses of Microeconomic Consumer Energy Conservation Policies.
- An Analysis of ENER$AVE.
- Consumer Energy Research: An Annotated Bibliography (1980, 1982, 1983, 1984).
- The Role of Home Energy Audits in Facilitating Residential Retrofits.
- Consumer Energy Conservation Options-Professional and Consumer Perspectives.
- An Initial Evaluation of the Canadian Oil Substitution Program: Converter and Non-Converter Profiles.
- Consumer Energy Research: A Review.
- Explaining Behavioral Response to Home Energy Audits.
- Early Adopters of Energy Conservation Projects in Winnipeg: A Case Study.

In addition, research sponsored by Consumer and Corporate Affairs has lead to the publication of Consumers and Energy Conservation: International Perspectives on Research and Policy Options (Praeger, New York), 1981.

CONCLUSIONS AND IMPLICATIONS

Conclusions

The major conclusions to be drawn from the preceding analysis are:

1. In both 1983 and 1984 unemployment was the major concern of most Canadians. As an issue, the possibility of energy shortages continues to decline and is now at its lowest level since the surveys were introduced in 1975. Hostile attitudes towards business and governments handling of the energy situation declined somewhat in 1984 and support for most conservation programs increased slightly. For the last two years fewer people held attitudes which reflect a need to conserve because of dwindling resources.
2. The price of energy is a matter of concern for many Canadians. In 1984 respondents estimated that energy prices increased by approximately 15 percent over the past twelve months. In fact, the increases were considerably less (approximately 2 percent for the energy price index). These perceptions suggest that consumers are basing their estimates, in part, on the "shock" prices of 1981 and 1982. Although the price estimates were high, fewer Canadians in the last two years reported engaging in energy conserving behaviors. The possibility exists that some people may now becoming accustomed to high, and increasing, energy prices and are reverting to previous behaviors. It should be noted, however, that the decline in conservation activities was slight (in most cases 4 to 8 percent).

3. Many people are receptive to or are planning further conservation activities. Nineteen in twenty respondents consider anyone who spends money on insulation is making a good investment and one in four plan to spend money within the next 12 months to improve the energy efficiency of their home, the improvements being primarily in the area of insulation and weatherstripping/caulking.
4. Awareness of and usage of CHIP and COSP have been relatively high for the past three years; eight in ten homeowners have heard of CHIP and approximately one in four received a grant. One-half of the homeowners who heat with oil have heard of COSP and slightly over one-half of the "switchers" received a grant.
5. With the exception of voluntary and informational programs, support for possible government conservation measures is low. In particular, little support is recorded for tax increases on various energy sources.
6. In contrast to some of the results in prior years, relationships between attitudes, program support and self-reported be-haviors concerning energy were logically consistent for the past two years. For example, the need to conserve had a significant, positive relationship to the self-reported behaviors. This suggests that attitudes and self-reported behaviors were related in 1983 and 1984 but because of the mixed results in prior years some caution is warranted concerning these findings.
7. A detailed analysis of vehicle ownership and wage patterns indicated that their is a slight shift towards vehicle downsizing (average

number of cylinders per vehicle declined from 6.4 to 6.1 between 1981 and 1984) which is occuring in both single and multiple vehicle households. Multiple vehicle households continue to operate their vehicles as much, if not more than single vehicle households for commuting. These heavy users account for a disproportionate level of gasoline consumption.

8. A detailed examination of homeowners who added insulation and weatherstripping/caulking revealed that the vast majority felt the money was well spent and they planned to spend more money to improve the energy efficiency of their home. These individuals might be described as active, satisfied investors in energy efficiency who plan to continue this practice.
9. Approximately one in four respondents stated that the high cost of energy had caused them severe hardships. These people are down-scale (lower income and education levels) and they report higher participation rates in conservation activities than do the "non-hardship" respondents.

Implications

Finally, the major implications of the analysis and conclusions are:

1. Few Canadians are now concerned about energy shortages. No attempt should be made to encourage conservation because of possible energy shortages.
2. Canadians are concerned about rising energy prices. They perceive that these prices are rising faster than in actual fact and there

appears to be a lag effect occuring between actual and perceived increases. It is possible that consumers may lower their perceptions in the next year because of the relatively modest real increases that have occurred. If this happens, it would seem reasonable to assume that conservation activities would decline.

3. The level of self-reported conservation behaviors were mixed in 1984 in comparison to 1983 suggesting that some Canadians may be accepting the higher energy prices and reverting to previous behaviors. However, it is clear that actual or perceived energy price increases remain as the single most important influence with respect to encouraging conservation or efficient energy management.

4. For the past two years a detailed analysis of two conservation activities - insulation and weatherstripping/caulking - has been conducted. In both years those who have performed the activities feel they are knowledgeable about energy, were satisfied with the job and felt the money was well spent. They also plan to do more in the coming twelve months. For this segment, conservation or energy management has been a positive experience and they are likely to continue with further efficiency measures. The other segment, those who have not insulated or weatherstripped, felt they had sufficient insulation and weatherstripping and don't plan to do much. This segment can be divided into two subsegments; those who have relatively energy efficient homes and those who don't. It is likely that many consumers in both subsegments don't know the energy efficiency of their homes. It might be worthwhile to encourage these people to assess

their home's efficiency. This could be done by an information program that asks the question: How energy efficient is your home? The "answer" could be offered by getting them to collect simple facts such as the number of inches of insulation in the attic or whether there are any drafts around windows/doors. Regardless of the program, the objective is to reach a segment of homeowners who don't think they need to improve efficiency but in fact do.

5. There has been a considerable downsizing of vehicles between 1981 and 1984 with most of the downsizing occurring in 1984. Because of the strong support offered by respondents for mandatory fuel consumption labels on new automobiles, the federal department responsible for this program might consider using this evidence to encourage new car dealers to keep the stickers on the cars.
6. Both CHIP and COSP received high awareness and participation levels. Continuation of current efforts with modest levels of advertising would be appropriate with these programs.
7. Any new thrusts in terms of information programs to encourage conservation should probably focus on energy efficiency rather than using the word "conservation". The connotations that can be linked to efficiency (e.g. - save money, comfort) are more powerful than any that may be linked to conservation.

TABLE 1

Problems Facing Canadians Today (1975, 1978-1984)

Mentioned (percentage)[a]	1975	1978	1979	1980	1981	1982	1983	1984
Energy only	2	2	4	5	5	1	1	1
Energy and another issue	6	5	13	17	16	5	7	3
Other issue	87	90	77	70	70	92	88	93
No issue	5	3	6	8	9	2	4	3
	100	100	100	100	100	100	100	100
Total energy mentions	8	7	17	22	21	6	8	4
N =	1422	1409	1654	1637	1606	1659	1897	1814

Question: "Of all the problems facing people living in Canada, which ones do you feel we should be most concerned about today? (PROBE) Are there any other areas of concern?"

[a] Includes "Don't Know" responses.

TABLE 2

Perceived Seriousness of Selected Issues in Canada (1975-1984)

Percent Stating Issue is Very Serious or Somewhat Serious[a]

Issue	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Inflation	92	90	91	92	92	95	93	95	87	76
Unemployment	73	76	87	94	88	82	80	96	98	98
Energy Shortage	45	60	63	62	60	66	57	49	42	42
Cost of Energy	-	-	-	-	80	82	80	82	85	74
Pollution	-	-	-	-	69	72	72	68	71	78
Interest Rates	-	-	-	-	-	-	-	95	67	62
N =	1422	1436	1413	1409	1654	1637	1606	1659	1897	1814

Question: "I would like you to think about the following issues and tell me how seriously you feel each one is affecting us in Canada today. Would you say it is very seriously affecting Canada, somewhat seriously, not too seriously, or not seriously at all?"

[a] Includes "Don't Know" responses.

TABLE 3

Importance of Individual Efforts to Conserve Energy (1975-1984)

Percent Stating Individual Efforts are Very or Somewhat Important[a]

	1975	1976	1977	1978	1979	1980	1981	1982	1983[b]	1984[b]
	87	91	92	95	92	93	93	93	95	95
N =	1422	1436	1413	1409	1654	1637	1606	1659	1897	1814

Question: "How important do you feel efforts by individuals to conserve energy can be? Do you feel these efforts would be very important, somewhat important, not too important, or not important at all?"

[a] Includes "Don't Know" responses.

[b] In 1983 and 1984, the question was: "Do you agree or disagree with the following statement: "It is important for individuals to make efforts to conserve energy".

TABLE 4

Attitudes Towards the Energy Situation (1979-1984)

	Percentage Agreeing[a]					
	1979	1980	1981	1982	1983	1984
Hostility						
The "Energy Crisis" was a hoax.	37	37	41	50	50	42
I resent utilities and governments asking me to save more energy.	30	27	28	35	30	27
Businesses waste far more energy than consumers do.	66	68	65	63	68	68
Government and business should be doing the energy saving not consumers.	31	27	29	33	34	32
The oil companies have profited unfairly from the energy situation.	-[b]	-	68	68	68	67
Need to Conserve						
There is no real need to conserve energy because technology will solve the problem.	18	15	16	21	18	15
There is no real need to conserve energy since we have plenty of gas and oil.	17	14	14	13	14	10
Soon everyone is going to have to use less energy.	80	86	82	79	66	65
If Canadians don't reduce the amount of gas and oil they use, in a few years Canada will be too dependent on foreign oil producers.	61	67	58	53	47	51
The solution to the energy situation will mean that all Canadians will have to change their lifestyles quite a bi.	-	-	67	68	57	53
Other						
It's probably not that difficult to reduce the amount of energy I use.	73	77	71	70	69	72
It is useless for the individual consumer to do anything about energy conservation.	14	13	12	15	12	10
Any homeowner who spends money on home insulation is making a good investment.	-	-	93	91	95	95
The high cost of energy has caused me severe hardship.	-	-	-	33	28	25
I budget very carefully for fuel and electricity bills.	-	-	-	-	59	58
I know where to get accurate information on how to save energy.	-	-	-	-	67	70

Question: "I am going to read some statements made about the energy situation. I'd like to know, for each, whether you agree or disagree. (READ * STATEMENT) Do you agree or disagree?"

[a] Includes "Don't Know" responses.
[b] Question was not asked in that year.

TABLE 5

Perceived Cost Increase in Past 12 Months (1979-1984)

Energy Source	Average Percentage Increase[a]					
	1979	1980	1981	1982	1983	1984
* Heating Oil	15.2	16.5	19.0	24.9	20.7	14.9
Electricity	14.7	13.0	14.0	18.5	15.8	13.6
Gasoline	14.7	17.6	19.9	29.8	24.9	16.1
Natural Gas	14.6	14.1	16.7	22.2	19.7	13.0

Question: "What about the cost of energy? By about what percentage do you think the cost of (FIRST * PHRASE) has increased in the last twelve months? You may not know exactly, but I'd like your best guess."

[a] Excludes "Don't Know" and "Not Applicable" responses.

TABLE 6

Actual Fuel Cost Increase in Past 12 Months (1979-1984)[a]

Energy Source	Average Percentage Increase[a]					
	1979	1980	1981	1982	1983	1984
Fuel oil and other liquid fuel	N/A	19.5	39.6	29.6	12.8	3.7
Electricity	N/A	8.0	9.7	10.6	8.5	7.5
Gasoline	N/A	19.0	32.3	27.5	12.6	(.2)
Piped and bottled gas	N/A	7.5	26.8	28.5	12.2	1.5
Water, fuel, and electricity	8.6	10.9	22.9	21.4	11.0	4.7
Energy	6.9	15.0	27.7	24.5	11.8	2.1
Consumer Price Index	9.2	9.3	12.4	11.6	7.2	4.7

[a] Source: The Consumer Price Index, Catalogue 62-001, Statistics Canada, Various Issues. Increases calculated on a March to March basis.

TABLE 7

Differences Between Perceived and Actual Cost Increases (1980-1984)

Energy Source	Absolute Difference (Perceived minus Actual)				
	1980	1981	1982	1983	1984
Heating Oil	- 3.0[a]	-20.6	- 4.7	+ 7.9	+11.2
Electricity	+ 5.0	- 4.3	+ 7.9	+ 7.3	+ 6.1
Gasoline	- 1.4	+12.4	+ 2.3	+12.3	+16.3
Natural Gas	+ 6.6	-10.1	- 6.3	+ 7.5	+11.5

[a] Read: Respondents, on average, underestimated the increase in heating oil prices in the last twelve months (1980).

TABLE 8

Self-Reported Energy Conserving Behaviors and Activities (1979-1984)
Percent of Eligible Respondents Engaging In:[a]

	1979	1980	1981	1982	1983	1984
Home Related						
Using less hot water	36	47	41	51	47	44
Turning down thermostat	71	86	80	83	78	79
Turning off lights more often	79	86	82	85	80	83
Keeping the hot water at lower temperature	36	47	46	52	48	46
Making improvements to home insulation	58	69	68	69	60[c]	59[c]
Furnace serviced yearly	79	79	77	77	76	72
Installed weatherstripping/ caulking	-[b]	-	65	76	69[c]	71[c]
Installed storm windows & doors	-	-	59	61	57	56
Installed a timer on thermostat	-	-	17	21	14	16
Transportation Related						
Driving less	43	57	54	59	56	51
Purchase smaller car	33	45	49	49	48	51
Car serviced more often	46	55	53	49	-	
Car tuned up twice per year	-	-	-	-	81	79
Using public transportation more	41	46	40	43	36	39
Participating in car pool	29	27	27	25	24	21
Check the tire pressure on my car at least once a month	-	-	-	68	62	63
Information Seeking						
Had a home energy audit conducted	-	14	17	19	19	20
Read "100 Ways to Save... Home"	34	40	38	-	-	-
Read "The Car Mileage Booklet"	26	27	26	-	-	-
Read "Keeping the Heat In"	26	27	23	-	-	-
Read "The Fuel Consumption Guide"	-	-	-	-	37	37
Read "Home Energy Planning Book"	-	-	-	-	-	31
Obtained literature about how to save energy	-	-	-	68	-	-
Often talk with my friends or neighbors about how to save energy	-	-	-	45	46	43
N =	1654	1637	1606	1659	1897	1814

Question: "Since the start of the energy situation a few years ago, some people have changed some of the things they do. I will now read to you a list of things people have or have not done to conserve energy. Please tell me "YES" or "NO" for each statement as it applies to you."

[a] "No answers" removed.
[b] - not asked.
[c] - asked of homeowners only in 1983 and 1984.

TABLE 9

Average Thermostat Settings (1979-1984)

	Day	Night
1979	67.8[a]	66.7
1980	67.1	66.1
1981	66.9	65.9
1982	66.8	65.0
1983	67.1	64.6
1984	67.2	65.7

[a] Degrees Fahrenheit.

TABLE 10

Awareness of and Participation in CHIP and COSP (1982-1984)

	Homeowners		
	1982	1983	1984
	%	%	%
CHIP			
- Heard of Program	78	82	80
- Received a Grant	23	27	29
COSP	Homeowners who heat with oil		
- Heard of Program	42	50	48
	Homeowners who have switched from oil to other energy form		
- Received a Grant	35	48	54
	Homeowners who heat with form other than oil (over total oil users)		
- Recently switched from oil to other energy form	13	15	12

TABLE 11

Degree of Support for Possible Government Conservation Measures (1979-1984)

	Percentage Supporting					
	1979	1980	1981	1982	1983	1984
Price Increase Programs						
A special tax on cars that get less than 20 miles per gallon.	55	63	57	45	35	36
Pricing electricity so that the cost per kilowatt hour becomes more expensive the more you use.	42	50	41	43	-	-
A special tax on gasoline to provide funds for oil exploration and technology improvements.	-	-	-	-	16	22
A tax on all heating fuels, electricity and gasoline to encourage people to conserve.	22	28	23	20	-	-
Increasing the price of all heating fuels, electricity, and gasoline to encourage people to conserve.	-	-	-	-	11	13
Regulatory Programs						
A requirement that all homes, new and old, would have to be insulated to a certain standard before they could be sold.	-	81	76	73	68	70
A program which requires automobile manufacturers to put fuel consumption stickers on all new cars that are for sale.	-	-	-	-	81	83
A program that requires all homeowners to pay $25 to have their house rated for energy efficiency. A certified person would examine the house and make recommendations.	-	57	51	45	-	-
Rationing the amount of gasoline, heating oil and electricity each person can use.	25	27	22	18	16	17
A government program to limit energy used for leisure and vacation travel.	-	-	31	29	-	-
Voluntary Programs						
A program that assists homeowners in having their houses rated for energy efficiency. For a fee of $25 a certified person would examine the house and make recommendations.	-	-	-	-	70	76
Subsidies to improve public transit to encourage people to leave their cars at home.	82	85	82	82	-	-
A program which shows people how to improve the insulation of their homes.	-	-	-	-	90	92

Question: "I would like to read to you a few suggestions that people have made while discussing the energy situation. As I read each one, would you tell me whether you would support or not support the suggestion. (READ * STATEMENT)

TABLE 12

Ranking of Cities by Attitudes and Behaviors (1979-1984)[a]

City	Serious About Energy Shortage Score (out of 6)	Importance of Individual Efforts Score (out of 6)	Participation in Four Energy Conserving Behaviors Score (out of 20)
Halifax	3	4	18
Quebec City	6	1	12
Montreal	6	6	9
Ottawa	4	3	20
Toronto	1	4	10
Winnipeg	0	3	3
Calgary	0	3	4
Vancouver	0	3	14

[a] Scores are the number of times city was at or above the average of all cities across the five years (only years with statistically significant results were included).

TABLE 13

Highlights of the 1984 Survey - Volume I

- Energy related issues do not rank highly among the public's perceptions of problems facing people living in Canada today. Less than 4 percent of respondents mentioned an energy matter as an area of concern for Canadians. Energy issues take a back seat to issues such as unemployment, inflation and the economy in general.

- While top-of-mind concern over energy related issues was low, over 75 percent of the respondents felt the cost of energy was very or somewhat seriously affecting Canadians today. This was comparable to the degree of seriousness attributed to inflation and pollution, but less serious than the employment issue. It is interesting to note, however, that only 25 percent of the respondents agreed with the statement "The high cost of energy has caused me severe hardship."

- Compared to the high cost of energy, the issue of energy shortages was considered to be less seriously affecting Canadians today. Only 40 percent of the respondents felt energy shortages were very or somewhat seriously affecting Canada. Despite this lower level of concern for the energy supply situation, 65 percent of the sample agree with the statement: "Soon everyone is going to have to use less energy."

- The level of concern over energy costs relative to energy shortages was also reflected in the support for suggestions designed to improve the energy supply situation. There was a general lack of support for suggestions such as "a special tax on cars that use more than 14 litres per 100 kilometers, increasing the price of all heating fuels, electricity and gasoline to encourage people to conserve" and "a special tax on gasoline to provide funds for oil exploration and technology improvements", where the costs would be borne by the consumer.

- There was general support for programs which would provide information that the respondents could apply to lower their energy costs. This included programs to assist homeowners in having their house rated for energy efficiency, programs requiring fuel consumption stickers on all new cars and programs demonstrating how to improve insulation of homes.

- While issues other than energy may be causing higher levels of concern currently, respondents in this survey have undertaken a large number of energy saving actions in the last few years. Aproximately 60 percent of the homeowners in this sample have added insulation to their home and about 70 percent have installed weather stripping or caulking on their windows or doors. Most had done this work (or had it done) within the last two years and most feel their money was well spent. Over 20 percent of the sample indicated they are planning to spend money in the next year to improve the energy efficiency of their home.

TABLE 13 (cont'd)

- In terms of day to day behaviour affecting energy consumption, 76 percent of Canadians in this sample indicated they keep their thermostat at a lower temperature than a few years ago. Most keep the temperature lower in the night time than during the day time. As well, eight out of ten respondents indicated they turn off lights in their home more often than a few years ago. Hot water usage has not exhibited the same degree of change. Less than 30 percent of the respondents keep the hot water heater at a lower temperature than a few years ago and about the same proportion use less hot water than a few years ago.

- Driving behaviour is another area where changes in energy consumption have not been as large, but have been demonstrated nonetheless. Forty-five percent of respondents are driving less than a few years ago. Similar numbers have bought a smaller car than the one they had a few years ago. Despite this, about one-third of the sample's newest cars have eight cylinders, and two-thirds of the sample drive to work or school at least five days a week. About one in five respondents is participating in a car pool and two in five are taking public transportation more often than a few years ago.

TABLE 14

Overview of Indices

Index	Number of Questions Used in Constructing Index	Sample Question
Attitudes		
Hostility	5	The "energy crisis" was a hoax.
Need to conserve	5	Soon everyone is going to have to use less energy.
Behaviors		
Self-reported conserving behaviors	17	Installed storm windows and/or doors.
In-home energy conserving actions	8	Using less hot water than a few years ago.
Transportation related energy conserving actions	6	Driving less than a few years ago. Fuel Consumption Guide".
Information realted to energy conserving actions	3	Read the Government booklet "The Fuel Consumption Guide".
Thermostat setting	2	At what temperature do you set your thermostat during the day?
Program Support		
Price/Tax increase	3	A special tax on cars that use more than 14 litres per 100 kilometers.
Mandatory Restriction	3	Rationing the amount of gasoline, heating oil, and electricity each person can use.

TABLE 15

Significant Relationships Between Attitudes and Other Indices

Comparison	Direction				
	1980	1981	1982	1983	1984
Hostility versus program support					
- price/tax increase	negative	positive	-	negative	negative
- mandatory	-	positive	positive	positive	positive
Hostility versus behaviors					
- energy conserving	-	-	-	-	positive
- in-home conserving	-	-	-	positive	positive
- transportation conserving	-	positive	positive	-	-
- information seeking	-	-	-	-	-
- thermostat setting	-	-	-	-	positive
Need to conserve versus program support					
- price/tax increase	positive	positive	positive	positive	positive
- mandatory	positive	positive	positive	positive	positive
Need to conserve versus self-reported behaviors					
- energy conserving	positive	positive	positive	positive	positive
- in-home conserving	positive	positive	positive	positive	positive
- transportation conserving	positive	positive	positive	positive	positive
- information seeking	-	-	positive	positive	positive
- thermostat setting	negative	-	-	negative	negative

TABLE 16

Significant Relationships Within Indices

- The hostility index is negatively related to the "need to conserve" attitude.
- The price/tax increase support index was positively related to the mandatory program support index.
- The six self-reported behaviors (conserving, perceived overall energy use, thermostat setting, and the three types of energy conserving actions) were generally related to each other in the expected direction.

Relationships not mentioned are not statistically significant based on Pearson correlation (significance level of 5%).

TABLE 17

Significant Relationships Between Demographics And The Indices[a]

Index		Demographic Categories Which Are High on Index				
		Age	Sex	Language	Income	Education
Attitudes						
- Hostility	1984	Older	-	French	Lower	Lower
	1983	Older	-	French	Lower	Lower
	1982	Older	Female	French	Lower	Lower
- Need to conserve	1984	Younger	Female	French	Lower	-
	1983	Younger	Female	French	-	Higher
	1982	Younger	Female	French	Lower	-
Program Support						
- Price/Tax increase	1984	Younger	-	-	Lower	Higher
	1983	-	Male	-	-	Higher
	1982	-	-	-	-	Higher
- Mandatory	1984	Younger	Female	French	Lower	Lower
	1983	-	Female	French	Lower	Lower
	1982	-	-	French	Lower	Lower
Behavior						
- Energy conserving actions	1984	Older	-	French	Lower	-
	1983	Older	-	-	Lower	-
	1982	-	Female	French	Lower	Lower
- In-home conserving actions	1984	Older	Female	-	-	Lower
	1983	Older	Female	-	Lower	Lower
	1982	Older	Female	-	-	Lower
- Transportation conserving actions	1984	-	-	French	Lower	-
	1983	Older	Female	French	Lower	-
	1982	-	-	French	Lower	-
- Information seeking actions	1984	Older	Male	French	Higher	-
	1983	Older	Male	-	-	-
	1982	-	-	French	Lower	-
- Day/Night thermostat setting	1984	Older	-	French	Lower	Lower
	1983	-	-	French	-	Lower
	1982	Older	-	French	-	-

[a] Based on chi-square tests (significant level of 5%).

[b] Higher income groups had a higher knowledge score than lower income groups.

TABLE 18

Number of Vehicles Owned
(Percentage)

Number of Vehicles	1981	1982	1983	1984	Change 1984-81
None	12.1	11.4	12.5	12.0	- .1
One	48.8	50.1	51.2	49.4	+ .6
Two	30.1	28.7	28.2	29.7	- .4
Three	6.0	7.4	5.8	6.0	.0
Four or more	3.0	2.4	2.3	2.9	- .1
Total	100.0	100.0	100.0	100.0	.0
N =	1593	1653	1894	1814	
Average number of vehicles owned/household	1.4	1.4	1.3	1.4	0.0
Average number of vehicles owned/vehicle owning household	1.6	1.6	1.5	1.6	0.0

TABLE 19

Distribution of Vehicles by Number of Cylinders
(Percentage)

Number of cylinders	1981	1982	1983	1984	Change 1984-81
Four	26.1	30.6	30.1	34.2	+ 8.1
Six	27.4	26.8	28.2	28.3	+ .9
Eight	46.5	42.6	41.7	37.5	- 9.0
Total	100.0	100.0	100.0	100.0	0.0
Number of vehicles	2061	2131	2360	2307	
Average number of cylinders/vehicle	6.4	6.2	6.2	6.1	- .3
Average number of cylinders/vehicle owning household	9.9	9.6	9.3	8.8	- 1.1

TABLE 20

Number of Cylinders per Vehicle, by Number of Vehicles Owned
(Percentage)

Number of Cylinders/car	1981	1982	1983	1984	Change 1981-1984
One Vehicle Households					
Four	26.3	29.5	29.9	36.7	+ 10.4
Six	30.3	29.9	29.5	29.4	- .9
Eight	43.4	40.6	40.6	33.9	- 9.5
Total	100.0	100.0	100.0	100.0	0.0
Average cylinders/car	6.3	6.2	6.2	5.9	- .4
Two Vehicle Households					
Four	27.7	30.8	31.6	35.0	+ 7.3
Six	25.9	26.4	25.8	27.9	+ 2.0
Eight	46.4	42.8	42.6	37.1	- 9.3
Total	100.0	100.0	100.0	100.0	100.0
Average cylinders/car	6.4	6.2	6.2	6.0	- .4
Three Vehicle Households					
Four	22.2	28.2	26.6	29.0	+ 6.8
Six	26.2	22.0	29.8	27.1	+ .9
Eight	51.6	49.8	43.6	43.9	- 7.7
Total	100.0	100.0	100.0	100.0	0.0
Average cylinders/car	6.6	6.4	6.3	6.3	- .3

TABLE 21

Commuting Activity per Week by Number of Vehicles Owned
(Percentage)

One vehicle households

Commuting Activity	1981	1982	1983	1984	Change 1984-81
Non-commuter (not used)	21.4	19.7	24.6	27.0	+ 5.6
Low commuter (4 days or less)	14.9	17.7	13.4	13.2	- 1.7
Average commuter (5 days)	36.4	52.9	39.4	39.8	+ 3.4
Heavy commuter (more than 5 days)	27.3	9.7	22.1	20.0	- 7.3
Total	100.0	100.0	100.0	100.0	0.0
Total households	776	821	964	870	-
Average days commuting	3.9	3.8	3.8	3.7	-.2

Two vehicle households

Commuting Activity	1981	1982	1983	1984	Change 1984-81
Low commuter (both used less than 5 days)	13.0	12.7	13.2	17.2	+ 4.2
Single commuter (one used 5 or more days, other not used)	25.0	29.0	30.3	32.8	+ 7.8
Single plus commuter (one used 5 or more days, other less than 5)	28.5	23.2	16.9	17.1	-11.4
Double commuter (both used 5 or more days)	33.5	35.1	39.6	32.9	- .6
Total	100.0	100.0	100.0	100.0	0.0
Total households	477	465	522	516	-
Average days commuting	7.6	7.5	7.6	7.1	- .5

Three vehicle households

Commuting Activity	1981	1982	1983	1984	Change 1984-81
Low (one used 5 days or more, others less than 5)	37.8	33.6	43.6	45.9	+ 8.1
Medium (two used 5 days or more, one less than 5)	39.2	45.4	34.2	37.3	- 1.9
Heavy commuter (three used 5 days or more)	23.0	21.0	22.2	16.8	- 6.2
Total	100.0	100.0	100.0	100.0	0.0
Total households	143	152	149	161	-
Average days commuting	10.8	11.1	10.3	10.0	-.8
Average days commuting (all households)	5.8	5.7	5.6	5.5	-.3

TABLE 22

Relationship Between Vehicle Ownership and Usage

Number of Vehicles Owned	Percent of Sample[a]			Average Number of Cylinders			Average Number of Days Driven to Work/School		
	1982	1983	1984	1982	1983	1984	1982	1983	1984
One	57	59	56	6.2	6.2	5.9	3.8	3.9	3.7
Two	32	32	34	6.2	6.2	6.0	3.7	3.8	3.6
Three or More	11	9	10	6.4	6.3	6.3	3.6	3.5	3.2
Total	100	100	100						
Mean				6.2	6.2	6.1	3.7	3.7	3.6

[a] Excludes households with no vehicle.

TABLE 23

Relationship Between Vehicle Ownership and Demographics

Average

Number of Vehicles Owned	Percent of Sample			Total Family Income			Percent Owning Home			Percent English Speaking			Number of People in Household			Number Working Full-Time in Household		
	1982	1983	1984	1982	1983	1984	1982	1983	1984	1982	1983	1984	1982	1983	1984	1982	1983	1984
None	11	13	12	$15,000	$15,600	$16,300	22	22	18	61	59	69	1.8	2.0	2.0	.7	.7	.6
One	50	51	49	$24,700	$25,100	$27,400	54	60	54	66	70	70	2.7	2.8	2.7	1.2	1.2	1.1
Two	29	28	30	$33,200	$32,000	$35,700	78	78	78	83	85	80	3.2	3.4	3.2	1.6	1.5	1.5
Three or More	10	8	9	$39,100	$34,700	$39,000	79	80	77	86	89	85	4.1	4.0	3.8	2.1	1.9	1.8
	100	100	100															
Total Sample (Average)				$27,600	$26,700	$29,300	60	62	58	69	74	74	2.9	3.0	2.9	1.4	1.3	1.2

TABLE 24

Characteristics of Homeowners Who Added Insulation and Weatherstripping/Caulking

Characteristic	Insulation	Weatherstripping/ Caulking
Have done activity	59%	71%
Did it themselves (versus contractor installed)	46%	82%
Activity done: within last two years	52%	82%
between 2 and 5 years	40%	15%
more than 5 years ago	8%	3%
Average amount spent	$ 800	$ 55
Money was well spent	95%	96%
Problems with job	8%	6%
Major problem	poor workmanship	hard to do
Other characteristics[a]	more conservation actions	more conservation actions
	more information seeking	more information seeking
	no demographics	no demographics except higher education have higher participation
Very handy fixing things around house	yes	yes
Budget carefully for fuel and electricity bills	-	-
Know where to get information on how to save energy	yes	yes
Age of home	older	older
Received a CHIP grant	yes	yes
Perception of energy efficiency of home	efficient	efficient
Plan to spend money to improve efficiency	yes	yes

[a] These and following categories compared to homeowners who did not perform activity.

TABLE 25

Profile of Severe Hardship Respondents (Highlights)

Demographics	Hardship Respondents
- Age	Older
- Sex	-
- Education	Lower
- Income	Lower ($25,000 and under)
- Language	French
- City	Quebec City, Montreal, Toronto, Winnipeg
Attitudes	
- Hostility	Higher
Reported Conservation Behaviors	
- In-home conserving actions	Higher
- Transportation conserving actions	Higher
- Information conserving actions	Higher

[a] Those respondents who agreed with the statement; "The high cost of energy has caused me severe hardships".

TABLE 26

Perceived Cost Increases by Attitudes and Behaviors

	Heating Oil	Electricity	Gasoline	Natural Gas
Average Increase[a]	14.9	13.6	16.1	13.0
Hostility				
Low	12.2	11.6	13.6	10.9
Medium	15.0	13.7	1.5	12.6
High	17.6	15.6	18.4	16.6
Energy conserving actions				
Low	14.0	12.9	15.3	_[b]
Medium	14.7	13.4	16.0	-
High	16.5	15.4	17.7	-
In-Home conserving actions				
Low	13.4	12.3	14.7	-
Medium	14.3	13.2	15.5	-
High	16.3	14.8	17.5	-
Transportation conserving actions				
Low	14.6	-	-	-
Medium	14.1	-	-	-
High	17.3	-	-	-

[a] Excludes "Don't Know" and "Not Applicable" responses.

[b] No significant differences between the average cost increases in natural gas for the three levels of energy conserving actions.

TABLE 27

Perceived Cost Increases by Demographics

	Heating Oil	Electricity	Gasoline	Natural Gas
Average Increase[a]	14.9	13.6	16.1	13.0
Age				
18-34	15.0	13.1	15.5	12.7
35-44	13.8	13.5	15.5	12.7
45-54	16.2	14.8	17.4	13.4
55 & over	15.1	13.7	17.5	14.1
Sex				
Female	16.5	15.0	18.1	15.4
Male	13.6	12.4	14.5	11.2
Education				
Elementary	17.6	15.4	19.7	14.9
Secondary	16.0	14.7	17.3	14.8
Univ./College	14.1	12.2	14.4	11.1
Income				
0-15,000	17.0	14.8	18.9	15.0
15-25,000	15.7	14.0	17.3	14.0
25-40,000	13.6	13.1	15.9	12.1
Over 40,000	13.3	12.5	13.5	11.8
Language				
French	-[b]	12.1	16.2	-
English	-	14.3	16.1	-
City				
Halifax	15.2	20.3	16.9	12.3
Moncton	11.5	10.0	12.4	6.3
Quebec City	14.2	11.9	16.3	10.4
Montreal	15.0	11.8	17.5	11.3
Ottawa	15.9	13.4	17.2	11.4
Toronto	16.5	13.2	19.8	14.1
Winnipeg	15.3	10.6	17.5	14.5
Calgary	16.7	17.1	11.7	15.5
Vancouver	14.7	13.2	16.4	12.2

[a] Excludes "Don't Know and "Not Applicable" responses.

[b] No significant differences between the average cost increase of heating oil for French versus English speaking respondents.

TABLE 28

Demographic Profile of Those Aware of or Have Participated in CHIP and COSP
(1984)

	CHIP		COSP	
Demographics	Heard of	Received Grant	Heard of	Received Grant
Age	-	Older	Older	-
Sex	Male	Male	Male	-
Education	Higher	-	Higher	-
Income	Higher	Higher	Higher	-
Language	English	English	French	French
City	Moncton Quebec Ottawa Winnipeg Calgary	Halifax Quebec City Ottawa Winnipeg Vancouver	Halifax Quebec City Montreal Ottawa	Quebec City Montreal Ottawa Toronto

TABLE 29

Future Intentions Regarding Conservation Actions

Plan to spend money during next twelve months to improve home energy efficiency.

	1982	1983	1984
Yes	24.3	25.4	22.7
No	59.1	59.1	63.8
Don't Know	3.4	3.8	5.8
Not Applicable	13.2	11.7	7.7
	100.0	100.0	100.0
N =	1659	1897	1814

If Yes: How much will be spent?

	1982	1983	1984
Under $100	11.9	11.0	11.7
$100 - $500	39.2	34.4	36.2
Over $500	38.0	38.6	38.8
Don't Know	10.9	16.0	13.3
	100.0	100.0	100.0
	403	482	412

What is the first improvement to be made (1984 only)

	1984
Insulation	30.1
Storm Windows	26.5
Weatherstripping/caulking	12.6
New Furnace	8.7
Other	17.7
Don't Know	4.4
	100.0
N =	412

A SURVEY OF THE CANADIAN PUBLIC'S ATTITUDES TOWARDS THE ENERGY SITUATION

- VOLUME II -

TECHNICAL APPENDIX

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Presented To:

Policy Co-ordination Bureau
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TABLE OF CONTENTS

Table of Contents..... i

Purpose of Technical Appendix..... 1
Objectives..... 1
Sampling Procedures (1975 to 1984)..... 2
Questionnaire Comparability (1975 to 1984)..... 3
Further Analysis..... 3
Index Construction..... 3

Tables

Table 1 - Sampling Procedures - 1975-1978..... 5
Table 2 - Sampling Procedures - 1979-1984 6
Table 3 - Sample Sizes, By City (1975-1984) 7
Table 4 - Question Comparability (1975-1984)..... 8
Table 5 - Sequence of Analysis, 1984 Survey 10
Table 6A - Construction of Hostility Index 11
Table 6B - Construction of Need to Conserve Index 12
Table 6C - Construction of Price/Tax Increase Support Index 13
Table 6D - Construction of Mandatory Restriction Programs Support Index 14
Table 6E - Construction of Energy Conserving Actions Index..... 15
Table 6F - Construction of In-Home Energy Conserving Actions Index 16
Table 6G - Construction of Transportation Related Energy Conserving Actions Index 17
Table 6H - Construction of Information Related Energy Conserving Actions Index 18
Table 6I - Construction of Day/Night Thermostat Setting Index..... 19

INTRODUCTION

Purpose of Technical Appendix

This 1984 survey conducted by Angus Reid Associates on behalf of Consumer and Corporate Affairs Canada, was the tenth annual survey of the Canadian public's attitudes towards the energy situation. Some of the results of the survey were presented in an Angus Reid Associates report titled "A Survey of the Public's Attitudes Toward the Energy Situation - Volume I" (April, 1984). Further analysis was performed by the authors of this appendix. Those results are presented in Volume II (July, 1984).

The purpose of this technical appendix is to summarize in tabular form the important statistics and the formulas of the indices used to draw conclusions in Volume II.

Objectives

The general objectives for the 1984 survey were:

- To identify the public's level of concern with respect to the energy situation (shortages and costs).
- To identify the public's attitudes towards energy conservation.
- To identify the public's current energy conserving behaviors.
- To identify the public's reaction to general policy alternatives and to specific government programs concerning energy.

These general objectives have been accomplished through the preparation and presentation of Volume I by Angus Reid Associates. The specific objectives of Volume II are:

- To compare the 1984 results with the nine previous annual surveys to provide a longitudinal view of the Canadian public's views concerning energy.

- To conduct further analysis of the 1984 survey to provide a better understanding of the relationship between Canadian's attitudes, and behavior with respect to the energy situation.

Sampling Procedures (1975 to 1984)

Between 1975 and 1978, the surveys were based on telephone interviews with respondents fifteen years of age or older (Table 1). In all cases, the youngest person at home at the time was interviewed. With the 1979 survey, interviews were conducted with the male or female head of household (Table 2) and Ottawa was added to the seven cities previously used in the survey (Table 3). Moncton was added in 1983.

The major consequence of changing the sampling procedure was to reduce the validity of year by year comparisons. The reasons for this are that in 1979-84 there were few respondents under 18 years of age and between 1975-78 at least some of the respondents were not heads of households. In order to allow comparisons the 1975-78 statistics were recalculated after removing the 15-17 year old respondents (approximately 20% of those surveyed). This does not make the surveys totally comparable but it was felt that a large proportion of the 18 and over respondents in the 1975-78 surveys were probably heads of household. Caution however is required when interpreting this section of the analysis.

The effect of removing the 15 to 17 year olds from the 1975 to 1978 questionnaires was examined for those questions concerning attitudes and behaviors. Except for the behavior "driving less" few differences were

observed with or without the 15 to 17 year olds. This was expected because during the years 1975 to 1978 age, in most cases, was not a significant determinant for either attitudes or behaviors. As there were few significant differences between the age groups, the exclusion of the 15 to 17 years old respondents will not alter the major conclusions reached in previous years.

Questionnaire Comparability (1975 to 1984)

In 1979 major revisions were made to the questionnaire. The consequence of this action was that most questions are no longer comparable between 1979 and the prior surveys. The questions that are comparable across the five years are listed in Table 4. The "linkage" analysis will use only these questions.

Further Analysis

The first volume of this study (prepared by Angus Reid Associates) reported the findings at a general level and provided a series of cross tabulations of the data. This report provides further analysis of the 1984 data by creating a series of indices (introduced in the 1979 study) which measures attitudes, program support, and behavior. The sequence for this analysis is described in Table 5. The method used to construct each index is presented in Tables 6A to 6I.

Index Construction

The questionnaire had a series of questions which measured attitudes, support for various programs and behavior. To provide a clearer

picture of these measurements nine indices were created. There are two attitude indices describing hostility and need to conserve. The two program support indices are price/tax increase and mandatory restrictions. There are five indices which measure energy conserving behaviors. These are energy conserving actions, day/night thermostat setting, in-home energy conserving actions, transportation related energy conserving actions and information related energy conserving actions. Each index was composed of between two and seventeen questions. For simplicity the results were coded as low, medium and high. The statistical test on which the results were based is the chi-square test.

Table 1

Sampling Procedures - 1975 to 1978

Results of the four studies were based on telephone interviews conducted with male and female respondents fifteen years of age or older. In all cases the youngest person home at the time of the interview, who qualified, was interviewed.

Quota sampling procedures were used in these studies. In all the centres studied both sex and age quotas were applied. All samples had to be fifty percent male and fifty percent female. The age quota required that fifty of the two hundred and fifty sample in each of the English cities be fifteen years of age, but less than eighteen. The remaining two hundred had to be eighteen years of age or over.

The only exceptions were Quebec City and Montreal, where the young quota (15 but less than 18) was increased to seventy-five giving a total sample of no less than 275 in each centre. Fieldwork was conducted in March and April of each year.

Table 2

Sampling Procedures - 1979 to 1984

Results of the 1979 to 1984 surveys are based on telephone interviews carried out in up to nine centres. Telephone numbers in the sample were selected, using a random procedure from the current telephone directories. Four replicates of numbers were selected for each city, each replicate being a random sample in its own right. Each replicate was exhausted before moving into the next one. The samples for all the cities were pre-selected at the head office of the research firm conducting the survey. A one initial call plus one call-back procedure was specified to improve the possibility of contacting people not at home initially. Only the female or male head of household was interviewed, the sex to be interviewed being specified on each questionnaire. Where there were two heads of household of the same sex, the one with the next birthday was selected.

Table 3

Sample Sizes, By City (1975-84)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Halifax	250	250	270	251	206	200	201	200	208	200
Moncton	-	-	-	-	-	-	-	-	210	200
Quebec City	293	288	281	275	205	207	200	207	212	201
Montreal	278	288	277	276	214	205	200	201	213	201
Ottawa	-	-	-	-	206	205	200	213	210	201
Toronto	251	262	260	251	206	205	203	202	213	202
Winnipeg	249	253	237	250	205	204	201	205	212	203
Calgary	248	250	248	255	206	205	201	224	210	204
Vancouver	251	249	244	250	206	206	200	207	209	202
Total Sample	1821	1840	1815	1808	1654	1637	1606	1659	1897	1814
Number of respondents age 15 to 17	399	404	402	399	-	-	-	-	-	-
Sample (excluding 15 to 17 age group)	1422	1436	1413	1409	1654	1637	1606	1659	1897	1814

Table 4

Question Comparability (1975-1984)

1. Unaided - importance of issues - 1975, 1978-1984.
Of all the problems facing people living in Canada, which ones do you feel we should be most concerned about today? (PROBE) Are there any other areas of concern?

2. Aided - importance of issues - 1975-1984.
I would like you to think about the following issues and tell me how seriously you feel each one is affecting us in Canada today. Let's start with (READ * PHRASE). Would you say it is very seriously affecting Canada, somewhat seriously, not too seriously, or not seriously at all? (CONTINUE DOWN LIST, AND FROM TOP DOWN, UNTIL ALL HAVE BEEN READ).

	Very Seriously	Somewhat Seriously	Not too Seriously	Not Seriously At All	Don't Know	Not Applicable
*Inflation Cost of	1.....	2.....	3.....	4.....	5.....	6.....
Energy[a]	1.....	2.....	3.....	4.....	5.....	6.....
Unemployment	1.....	2.....	3.....	4.....	5.....	6.....
Pollution	1.....	2.....	3.....	4.....	5.....	6.....
Energy Shortage	1.....	2.....	3.....	4.....	5.....	6.....
Interest Rates[b]	1.....	2.....	3.....	4.....	5.....	6.....

[a] Appeared in 1978 to 1984.
[b] Appeared in 1982 to 1984.

3. Stated Behaviors concerning energy - 1975 - 1979.

Between 1975 and 1978 the question was phrased as follows:
I will now read you a list of things people say they are doing now to conserve energy. Please tell me which one(s), if any, you yourself are currently doing? READ LIST.

	Yes	No	Doesn't Apply	Don't Know
Keeping the thermostat at a lower temperature	1	2	3	V
Driving less	1	2	3	V
Using less hot water	1	2	3	V
Turning off lights more often	1	2	3	V

Table 4 (continued)

In 1979 the question was phrased as follows:

I will now read to you a list of things people may or may not be doing to conserve energy. Please tell me "YES" or "NO" for each statement as it applies to you.

	Yes	No	Not Applicable
Keeping the thermostat at a lower temperature than a year ago	1	2	0
Turning off lights in your home more often than last year	1	2	0
Using less hot water than a year ago	1	2	0
Driving less than a year ago	1	2	0

In 1980 to 1984 the question was phrased as follows:

Since the start of the energy situation a few years ago, some people have changed some things they do. I will now read to you a list of things people have or have not done to conserve energy. Please tell me "YES" or "NO" for each statement as it applies to you.

	Yes	No	Not Applicable
*Keeping the thermostat at a lower temperature than a few years ago	1	2	0
Turning off lights in your home more often than a few years ago	1	2	0
Using less hot water than a few years ago	1	2	0
Driving less than a few years ago	1	2	0

NOTE: A number of other behaviors were measured during the nine years but only the common behaviors are listed above.

Table 5

Sequence of Analysis, 1984 Survey

Step	Activity	Comments
1	Create Attitude, Program Support and Behavior Indices	See Tables 6A to 6I for method used to calculate indices.
2	Identify proportion of sample on each index.	
3	Identify relationships between Attitudes, Program Support and Behavior	
4	Identify demographic characteristics related to Attitudes, Program Support and Behavior	

Table 6A

Construction of Hostility Index

I am going to read some statements made about the energy situation. I'd like to know, for each, whether you agree or disagree.

	Agree	Disagree	Not Applicable
The "Energy Crisis" was a hoax.	1	0	0
I resent utilities and governments asking me to save more energy.	1	0	0
Businesses waste far more energy than consumers do.	1	0	0
Government and business should be doing the energy saving, not consumers.	1	0	0
The oil companies have profited unfairly from the energy situation.	1	0	0

Index = Total x 100 ÷ (5 minus number of "Not Applicable")

Low: 0 < Index < 34
Medium: 34 < Index < 67
High: 67 < Index < 100

Table 6B

Construction of Need to Conserve Index

I am going to read some statements made about the energy situation. I'd like to know, for each, whether you agree or disagree.

	Agree	Disagree	Not Applicable
There is no real need to conserve energy because technology will solve the problem.	0	1	0
Since we have plenty of gas and oil, there is no real need to conserve energy.	0	1	0
Soon everyone is going to have to use less energy.	1	0	0
If Canadian's don't reduce the amount of gas and oil they use, in a few years Canada will be too dependent on foreign oil producers.	1	0	0
The solution to the energy situation will mean that all Canadians will have to change their lifestyles quite a bit.	1	0	0

Index = Total x 100 ÷ (5 minus number of "Not Applicable")

Low: $0 \leq \text{Index} \leq 34$
Medium: $34 < \text{Index} \leq 67$
High: $67 < \text{Index} \leq 100$

Table 6C

Construction of Price/Tax Increase Support Index

I would like to read to you a few suggestions that people have made while discussing the energy situation. As I read each one, would you tell me whether you would support or not support the suggestion.

	Support	Not Support	Not Applicable
A special tax on cars that use more than 14 litres per 100 kilometers.	1	0	0
Increasing the price of all heating fuels, electricity and gasoline to encourage people to conserve.	1	0	0
A special tax on gasoline to provide funds for oil exploration and technology improvements.	1	0	0

Index = Total x 100 ÷ (3 minus number of "Not Applicable")

Low: Index = 0
Medium: Index = 33 1/3 or 50
High: Index = 66 2/3 or 100

Table 6D

Construction of Mandatory Restriction Programs Support Index

I would like to read to you a few suggestions that people have made while discussing the energy situation. As I read each one, would you tell me whether you would support or not support the suggestion.

	Support	Not Support	Not Applicable
Rationing the amount of gasoline, heating oil and electricity each person can use.	1	0	0
A program which requires automobile manufacturers to put fuel consumption stickers on all new cars that are for sale.	1	0	0
A requirement that all homes, new and old, would have to be insulated to a certain standard before they could be sold.	1	0	0

Index = Total x 100 ÷ (3 minus number of "Not Applicable").

Low: $0 < \text{Index} < 34$
Medium: $34 < \text{Index} < 67$
High: $67 < \text{Index} < 100$

Table 6E

Construction of Energy Conserving Actions Index

Since the start of the energy situation a few years ago, some people have changed some things they do. I will now read to you a list of things people have or have not done to conserve energy. Please tell me "YES" or "NO" for each statement as it applies to you.

	Yes	No	Not Applicable
Keeping the thermostat at a lower temperature than a few years ago.	1	0	0
Turning off lights in your home more often than a few years ago.	1	0	0
Keeping the hot water heater at a lower temperature than a few years ago.	1	0	0
Using less hot water than a few years ago.	1	0	0
Driving less than a few years ago.	1	0	0
Bought a smaller car than the one you had a few years ago.	1	0	0
Having your car tuned up at least twice a year.	1	0	0
Using public transportation more often than a few years ago.	1	0	0
Have your furnace serviced at least once a year.	1	0	0
Participate in a car pool/sharing a ride to work with others.	1	0	0
Check the tire pressures on my car at least once a month.	1	0	0
Had a home energy audit done - this involves having a certified service person examine the house and rate it for energy efficiency.	1	0	0
Often talk with my friends and neighbours about how to save energy.	1	0	0
Installed storm windows/doors	1	0	0
Installed a timer controlled thermostat	1	0	0
Read the Government booklet "The Fuel Consumption Guide".	1	0	0
Read the Government booklet "Home Energy Planning Book".	1	0	0

Index = Total x 100 ÷ (17 minus number of "Not Applicable").

Low: 0 < Index < 34
Medium: 34 < Index < 67
High 67 < Index < 100

Table 6F

Construction of In-Home Energy Conserving Actions Index

Since the start of the energy situation a few years ago, some people have changed some things they do. I will now read to you a list of things eople have or have not done to conserve energy. Please tell me "YES" or "NO" for each statement as it applies to you.

	Yes	No	Not Applicable
Keeping the thermostat at a lower temperature than a few years ago.	1	0	0
Turning off lights in your home more often than a few years ago.	1	0	0
Keeping the hot water heater at a lower temperature than a few years ago.	1	0	0
Using less hot water than a few years ago.	1	0	0
Have your furnace serviced at least once a year.	1	0	0
Had a home energy audit done.	1	0	0
Installed a timer controlled thermostat	1	0	0
Installed storm windows/doors	1	0	0

Index = Total x 100 ÷ (8 minus number of "Not Applicable").

Low: 0 ≤ Index ≤ 34
Medium: 34 < Index ≤ 67
High 67 < Index ≤ 100

Table 8G

Construction of Transportation Related Energy Conserving Actions Index

Since the start of the energy situation a few years ago, some people have changed some things they do. I will now read to you a list of things people have or have not done to conserve energy. Please tell me "YES" or "NO" for each statement as it applies to you.

	Yes	No	Not Applicable
Driving less than a few years ago.	1	0	0
Bought a smaller car than the one you had a few years ago.	1	0	0
Having your car tuned up at least twice a year.	1	0	0
Using public transportation more often than a few years ago.	1	0	0
Check the tire pressure on my car at least once a month.	1	0	0
Participate in a car pool/sharing a ride to work with others.	1	0	0

Index = Total x 100 ÷ (6 minus number of "Not Applicable").

Low: $0 < \text{Index} < 34$
Medium: $34 < \text{Index} < 67$
High $67 < \text{Index} < 100$

Table 6H

Construction of Information Related Energy Conserving Actions Index

Since the start of the energy situation a few years ago, some people have changed some things they do. I will now read to you a list of things ople have or have not done to conserve energy. Please tell me "YES" or "NO" for each statement as it applies to you.

	Yes	No	Not Applicable
Read the Government booklet "The Fuel Consumption Guide".	1	0	0
Read the Government booklet "Home Energy Planning Book".	1	0	0
Often talk with my friends and neighbours about how to save energy.	1	0	0

Index = Total x 100 ÷ (3 minus number of "Not Applicable").

Low: 0 < Index < 34
Medium: 34 < Index < 67
High 67 < Index < 100

Table 6I

Construction of Day/Night Thermostat Setting Index

At what temperature do you set your thermostat during the day? During the night?

	During the Day	During the night
Under 60°F (under 15°C)	1	1
60 to 63°F (15 to 17°C)	2	2
64 to 66°F (18 to 19°C)	3	3
67 to 69°F (About 20°C)	4	4
70 to 72°F (21 to 22°C)	5	5
Over 72°F (over 22°C)	6	6
Don't Know	0	0
No Thermostat	0	0
Off	0	0

Index = Total x 100 ÷ (2 minus number of "Don't Know" and "No Thermostat")

Low: Index < 300
Medium: 300 < Index < 450
High: 450 < Index < 600